

C2
analogues and derivatives thereof which retain activity of the native sequence, wherein said peptide has the following characteristics:

- See D1*
- (a) it is a substantially homogenous preparation;
 - (b) it has at least 80% homology to any one of the sequences of SEQ ID NOS: 2-10 and 18, and
 - (c) said leptin peptide modulates body mass.

C3
4. (Amended three times) A leptin peptide consisting essentially of the amino acid sequence Xaa_n-Ser-Cys-Xaa₁-Leu-Pro-Xaa₂-Xaa₃-Xaa_n, wherein:

- (a) either Xaa_n is zero or a contiguous stretch of at most seven peptide residues derived from SEQ ID NOS: 1 or 17; and
- (b) Xaa₁, Xaa₂ and Xaa₃ is any amino acid substitution;

wherein said leptin peptide has leptin or leptin-like activity.

C4
12. (Amended three times) A peptide consisting essentially of an amino acid sequence of the leptin protein of any one of SEQ ID NOS:1 and 17, and selected from the group consisting of:

- See D1*
- (i) a sequence comprising amino acids 21-35 (SEQ ID NO:3);
 - (ii) a sequence comprising amino acids 31-45 (SEQ ID NO:4);
 - (iii) a sequence comprising amino acids 41-55 (SEQ ID NO:5);
 - (iv) a sequence comprising amino acids 51-65 (SEQ ID NO:6);
 - (v) a sequence comprising amino acids 61-75 (SEQ ID NO:7);
 - (vi) a sequence comprising amino acids 71-85 (SEQ ID NO:8);
 - (vii) a sequence comprising amino acids 81-95 (SEQ ID NO:9);
 - (viii) a sequence comprising amino acids 91-105 (SEQ ID NO:10);
 - (ix) a sequence comprising mouse amino acids 116-122 (SEQ ID NO:2);
 - (x) a sequence comprising human amino acids 116-122 (SEQ ID NO:18);

and fragments, derivatives, homologs and analogs thereof.

C5
61. (amended once) A purified peptide comprising the amino acid residue sequence of SEQ ID NO:18.